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## Simple harmonic motion

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in physics, repetitive movement back and forth through one central position so that maximum displacement on one side of the position equals maximum displacement on other side; things that exhibit simple **harmonic** motion include oscillating pendulum, electrons in a wire carrying alternating current, and a vibrating mass attached to a string; this motion called **harmonic** because musical instruments make such vibrations that in turn cause corresponding sound waves in air; concept first published in 1822 by French mathematician Baron Jean-Baptiste-Joseph Fourier.

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